



SEQUENCE LISTING

<110> Kosan Biosciences, Inc.
Katz, Loenard
Revill, Peter

<120> PRODUCTION OF POLYKETIDES

<130> 30062-20048.10

<140> US 10/607,809
<141> 2003-06-27

<150> US 09/697,022
<151> 2000-10-25

<150> US 60/161,414
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actttggagc gggtgcgttc gttcggcccta gtggcgtgct ccgcggatcaagtgtag 300
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Val Glu Leu Ala Asp Arg Ala Arg Arg Ala Cys Arg Leu Leu Arg
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cgt tgg ctg gcc gag acg cac act ccg gtg gag ccc ggc ccg ctg tcc 450
Arg Trp Leu Ala Glu Thr His Thr Pro Val Glu Pro Gly Pro Leu Ser
25 30 35

ctg cgg atc ggc ccg gtg cgg gtg tcg gcc gag gtc gct tac cgc tcg 498
Leu Arg Ile Gly Pro Val Arg Val Ser Ala Glu Val Ala Tyr Arg Ser
40 45 50

ccg acg ggc gcc cac ggg ttc ggc ccg atc cgc gtc ctc gat gcc gag 546
Pro Thr Gly Ala His Gly Phe Gly Pro Ile Arg Val Leu Asp Ala Glu
55 60 65

ggt gtg ccg gtg gcg ctc gcc gat ccg gtg ctg ctg gcg gcc gcc tgc 594
Gly Val Pro Val Ala Leu Ala Asp Pro Val Leu Leu Ala Ala Cys
70 75 80

tcg gcg gac tcg cgg agc cgc tcg ctg ccg agc gcg ccg atc aac gcc Ser Ala Asp Ser Arg Ser Arg Ser Leu Pro Ser Ala Pro Ile Asn Ala	85	90	95	100	642	
ccg gac gcc ggt acc gct gtc gac tgg gtg ctc tcg tcg ctc gcc gac Pro Asp Ala Gly Thr Ala Val Asp Trp Val Leu Ser Ser Leu Ala Asp	105	110	115		690	
gac gag gac gac gag gtg ccc gcc ggc atg acc gcg gag gag gcg gtg Asp Glu Asp Asp Glu Val Pro Ala Gly Met Thr Ala Glu Glu Ala Val	120	125	130		738	
cgc ctg ctg tcg cgg cag gtc gac gac ctg cgg cgg tcg ccg gcc gac Arg Leu Leu Ser Arg Gln Val Asp Asp Leu Pro Arg Ser Pro Gly Ala	135	140	145		786	
gac ccg tgg tcg ctg gtc gcc ggc ccg ctg qcg gcc atc qgg cgg ttc Asp Pro Trp Ser Leu Val Ala Gly Pro Leu Ala Ala Ile Gly Arg Phe	150	155	160		834	
ggg cgg gcc ggg atc gcc gac gag tgc tgg ttg ctg gag qtg ctc gcc Gly Arg Ala Gly Ile Ala Asp Glu Cys Trp Leu Leu Glu Val Leu Ala	165	170	175	180		882
ggg cgg ctc cgc gcg gtc gac gac ctg tcc cgc tcg tgg ctg agc Gly Arg Leu Arg Ala Val Asp Asp Asp Leu Ser Arg Ser Trp Leu Ser	185	190	195			930
agt ccg acg ctc gcc gac cgc gct gtg ctc gtg ggt gag ggg ttg cgc Ser Pro Thr Leu Ala Asp Arg Ala Val Leu Val Gly Glu Leu Arg	200	205	210			978
tac cgg ccg gat gtg cgg ccg gtg ccg ttc gac gtg ccg aac ccg ctg Tyr Arg Pro Asp Val Arg Pro Val Pro Phe Asp Val Pro Asn Pro Leu	215	220	225			1026
cac gag ggc aag tcc gac gtc ccg ccg ccc gtg ccc gtg ctg ggc His Glu Gly Lys Ser Asp Val Pro Pro Pro Val Pro Val Leu Gly	230	235	240			1074
ggg ccg tgg tcg ctg cgt ccg gtc gag gtc gcg gtc cac ggg gat ggc Gly Pro Trp Ser Leu Arg Pro Val Glu Val Ala Val His Gly Asp Gly	245	250	255	260		1122
ggg cct gac gtc gca ctg gtg cac cgc tgg atg aac acc ccg cac gtc Gly Pro Asp Val Ala Leu Val His Arg Trp Met Asn Thr Pro His Val	265	270	275			1170
gcg cac cac tgg aac cag gcg tgg ccg ctg gag cgc tgg cgg gag gaa Ala His His Trp Asn Gln Ala Trp Pro Leu Glu Arg Trp Arg Glu Glu	280	285	290			1218
ctc gcc cac cag ctc ggc ggt gag cac tcc ctg ccc tgc gtg gtc gga Leu Ala His Gln Leu Gly Gly Glu His Ser Leu Pro Cys Val Val Gly	295	300	305			1266
cac gag gga cgc gag gtc gcg tat ctg gag ctc tac cgg gtg acc cgc His Glu Gly Arg Glu Val Ala Tyr Leu Glu Leu Tyr Arg Val Thr Arg	310	315	320			1314
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cac atc gcg atc ggc gag cg ^g g ^g g ^g gt ^g ctc g ^{gg} cgc g ^{gt} ttc g ^{gg} tc ^g				1410
His Ile Ala Ile Gly Glu Arg Glu Val Leu Gly Arg Gly Phe Gly Ser				
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tcg ctg ctg cgc gc ^g g ^{gt} g ^{gt} g ^{cg} ctg ctg g ^{ac} g ^{cc} g ^{at} ccg cg ^g				1458
Ser Leu Leu Arg Ala Val Ala Gly Ala Leu Leu Asp Ala Asp Pro Arg				
360	365	370		
tgc g ^{cg} cgg gt ^g gtc g ^{cc} gag cc ^g a ^{at} gt ^g cac a ^{ac} g ^{ag} g ^{ct} tc ^g gt ^g				1506
Cys Ala Arg Val Val Ala Glu Pro Asn Val His Asn Glu Ala Ser Val				
375	380	385		
cg ^c g ^{cc} ttc g ^{cc} a ^a g ^{cc} g ^{gg} ttc g ^{tc} c ^{gg} g ^{ag} a ^{gg} g ^{ag} a ^{tc} g ^{gc} ct ^g				1554
Arg Ala Phe Ala Lys Ala Gly Phe Val Arg Glu Arg Glu Ile Gly Leu				
390	395	400		
ccc gcc a ^a a ^a tc ^g g ^c t ct ^g at ^g g ^{tc} ttc tcc c ^{gg} g ^{tc} t gacgaccgg ^t				1604
Pro Ala Lys Asn Ser Ala Leu Met Val Phe Ser Arg Val				
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ctgaccacag ^c cg ^c agttaggg ^g catctggttc ^g gcccagcaac ^g tcgaccggac ^g gaacccgatc ^g				1784
tacaacaccc ^g g ^c g ^a gtgcgt ^g cgagatcagc ^g ggcccgg ^t gg ^g agccgg ^t gg ^g gttcgagcag ^g				1844
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Gly Pro Leu Ser Leu Arg Ile Gly Pro Val Arg Val Ser Ala Glu Val				
35	40	45		
Ala Tyr Arg Ser Pro Thr Gly Ala His Gly Phe Gly Pro Ile Arg Val				
50	55	60		
Leu Asp Ala Glu Gly Val Pro Val Ala Leu Ala Asp Pro Val Leu Leu				
65	70	75	80	
Ala Ala Ala Cys Ser Ala Asp Ser Arg Ser Arg Ser Leu Pro Ser Ala				
85	90	95		
Pro Ile Asn Ala Pro Asp Ala Gly Thr Ala Val Asp Trp Val Leu Ser				
100	105	110		
Ser Leu Ala Asp Asp Glu Asp Asp Glu Val Pro Ala Gly Met Thr Ala				
115	120	125		
Glu Glu Ala Val Arg Leu Leu Ser Arg Gln Val Asp Asp Leu Pro Arg				
130	135	140		
Ser Pro Gly Ala Asp Pro Trp Ser Leu Val Ala Gly Pro Leu Ala Ala				
145	150	155	160	
Ile Gly Arg Phe Gly Arg Ala Gly Ile Ala Asp Glu Cys Trp Leu Leu				
165	170	175		
Glu Val Leu Ala Gly Arg Leu Arg Ala Val Asp Asp Asp Leu Ser Arg				
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Ser Trp Leu Ser Ser Pro Thr Leu Ala Asp Arg Ala Val Leu Val Gly				
195	200	205		
Glu Gly Leu Arg Tyr Arg Pro Asp Val Arg Pro Val Pro Phe Asp Val				

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245	250	255
His Gly Asp Gly Gly Pro Asp Val Ala Leu Val His Arg	Trp Met Asn	
260	265	270
Thr Pro His Val Ala His His Trp Asn Gln Ala Trp	Pro Leu Glu Arg	
275	280	285
Trp Arg Glu Glu Leu Ala His Gln Leu Gly Gly	Glu His Ser Leu Pro	
290	295	300
Cys Val Val Gly His Glu Gly Arg Glu Val Ala	Tyr Leu Glu Leu Tyr	
305	310	315
Arg Val Thr Arg Asp Lys Leu Ala Gly Cys	Tyr Pro Tyr Gly Pro His	320
325	330	335
Asp Leu Gly Val His Ile Ala Ile Gly Glu Arg	Glu Val Leu Gly Arg	
340	345	350
Gly Phe Gly Ser Ser Leu Leu Arg Ala Val Ala	Gly Ala Leu Leu Asp	
355	360	365
Ala Asp Pro Arg Cys Ala Arg Val Val Ala Glu	Pro Asn Val His Asn	
370	375	380
Glu Ala Ser Val Arg Ala Phe Ala Lys Ala Gly	Phe Val Arg Glu Arg	
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35	40	45
Phe Pro Thr Gly Ser Leu Ser Ser Pro Pro Ala Pro Arg Gly Gly Phe		
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Leu Asp Ser Ile Asp Thr Phe Asp Ala Asp Phe Phe Asn Ile Ser Pro		
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Arg Glu Ala Gly Val Leu Asp Pro Gln Gln Arg Leu Ala Leu Glu Leu		
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Gly Trp Glu Ala Leu Glu Asp Ala Gly Ile Val Pro Arg His Leu Arg		
100	105	110
Gly Thr Arg Thr Ser Val Phe Met Gly Ala Met Trp Asp Asp Tyr Ala		
115	120	125
His Leu Ala His Ala Arg Gly Glu Ala Ala Leu Thr Arg His Ser Leu		
130	135	140
Thr Gly Thr His Arg Gly Met Ile Ala Asn Arg Leu Ser Tyr Ala Leu		
145	150	155
Gly Leu Gln Gly Pro Ser Leu Thr Val Asp Thr Gly Gln Ser Ser Ser		
165	170	175
Leu Ala Ala Val His Met Ala Cys Glu Ser Leu Ala Arg Gly Glu Ser		
180	185	190
Asp Leu Ala Leu Val Gly Gly Val Asn Leu Val Leu Asp Pro Ala Gly		
195	200	205
Thr Thr Gly Val Glu Arg Phe Gly Ala Leu Ser Pro Asp Gly Arg Cys		
210	215	220

Tyr Thr Phe Asp Ser Arg Ala Asn Gly Tyr Ala Arg Gly Glu Gly Gly
 225 230 235 240
 Val Val Val Val Leu Lys Pro Thr His Arg Ala Leu Ala Asp Gly Asp
 245 250 255
 Thr Val Tyr Cys Glu Ile Leu Gly Ser Ala Leu Asn Asn Asp Gly Ala
 260 265 270
 Thr Glu Gly Leu Thr Val Pro Ser Ala Arg Ala Gln Ala Asp Val Leu
 275 280 285
 Arg Gln Ala Trp Glu Arg Ala Arg Val Ala Pro Thr Asp Val Gln Tyr
 290 295 300
 Val Glu Leu His Gly Thr Gly Thr Pro Ala Gly Asp Pro Val Glu Ala
 305 310 315 320
 Glu Gly Leu Gly Thr Ala Leu Gly Thr Ala Arg Pro Ala Glu Ala Pro
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 340 345 350
 Ala Gly Ile Ala Gly Leu Leu Lys Thr Val Leu Ser Ile Lys Asn Arg
 355 360 365
 His Leu Pro Ala Ser Leu Asn Phe Thr Ser Pro Asn Pro Arg Ile Asp
 370 375 380
 Leu Asp Ala Leu Arg Leu Arg Val His Thr Ala Tyr Gly Pro Trp Pro
 385 390 395 400
 Ser Pro Asp Arg Pro Leu Val Ala Gly Val Ser Ser Phe Gly Met Gly
 405 410 415
 Gly Thr Asn Cys His Val Val Leu Ser Glu Leu Arg Asn Ala Gly Gly
 420 425 430
 Asp Gly Ala Gly Lys Gly Pro Tyr Thr Gly Thr Glu Asp Arg Leu Gly
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 Ala Thr Glu Ala Glu Lys Arg Pro Asp Pro Ala Thr Gly Asn Gly Pro
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 Asp Pro Ala Gln Asp Thr His Arg Tyr Pro Pro Leu Ile Leu Ser Ala
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 Arg Ser Asp Ala Ala Leu Arg Ala Gln Ala Glu Arg Leu Arg His His
 485 490 495
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 580 585 590
 Gln Cys Ala Asp Ala Leu Ile Pro His Thr Gly Trp Asp Pro Ile Ala
 595 600 605
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 Val Cys Trp Ala Val Met Val Ser Leu Ala Ala Val Trp Glu Ala Ala
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 Gly Val Arg Pro Asp Ala Val Ile Gly His Ser Gln Gly Glu Ile Ala
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 660 665 670
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 675 680 685
 Gly Ala Met Gly Ser Val Ala Leu Pro Ala Ala Asp Val Glu Ala Asp
 690 695 700
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 Thr Thr Thr Val Ala Gly Arg Pro Asp Ala Val Glu Thr Leu Ile Ala

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Asp Tyr Glu Ala Arg Gly Val Trp Val	Arg Arg Ile Ala Val Asp Cys	
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Pro Thr His Thr Pro Phe Val Asp Pro Leu Tyr Asp Glu Leu Gln Arg		
755	760	765
Ile Val Ala Asp Thr Thr Ser Arg Thr Pro Glu Ile Pro Trp Phe Ser		
770	775	780
Thr Ala Asp Glu Arg Trp Ile Asp Ala Pro Leu Asp Asp Glu Tyr Trp		
785	790	795
Phe Arg Asn Met Arg His Pro Val Gly Phe Ala Thr Ala Val Thr Ala		
805	810	815
Ala Arg Glu Pro Gly Asp Thr Val Phe Val Glu Val Ser Ala His Pro		
820	825	830
Val Leu Leu Pro Ala Ile Asp Gly Ala Thr Val Ala Thr Leu Arg Arg		
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Gly Gly Gly Val His Arg Leu Leu Thr Ala Leu Ala Glu Ala His Thr		
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Thr Gly Val Pro Val Asp Trp Ala Ala Val Val Pro Ala Thr Ala Thr		
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Ala His Asp Leu Pro Thr Tyr Ala Phe His His Glu Arg Tyr Trp Ile		
885	890	895
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Arg Gly Trp Asp Val Asp Gly Leu Tyr Asp Pro Asp Pro Asp His Pro		
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Gly Thr Ser Thr Val Arg His Gly Gly Phe Leu Ala Gly Val Ala Asp		
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Phe Asp Ala Ala Phe Phe Gly Ile Ser Pro Arg Glu Ala Leu Ala Met		
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Asp Pro Gln Gln Arg Leu Val Leu Glu Thr Ser Trp Glu Ala Leu Glu		
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His Ala Gly Ile Leu Pro Glu Ser Leu Arg Gly Ser Asp Thr Gly Val		
115	120	125
Phe Met Gly Ala Phe Ser Asp Gly Tyr Gly Leu Gly Thr Asp Leu Gly		
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Gly Phe Gly Ala Thr Gly Thr Gln Thr Ser Val Leu Ser Gly Arg Leu		
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Ser Tyr Phe Tyr Gly Leu Glu Gly Pro Ala Val Thr Val Asp Thr Ala		
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Cys Ser Ser Ser Leu Val Ala Leu His Gln Ala Gly Gln Ser Leu Arg		
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Ser Gly Glu Cys Ser Leu Ala Leu Val Gly Gly Val Thr Val Met Ala		
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Ser Pro Ser Gly Phe Val Glu Phe Ser Gln Gln Arg Gly Leu Ala Pro		
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 245 250 255
 Arg Asn Gly His Arg Val Leu Ala Val Val Arg Gly Ser Ala Val Asn
 260 265 270
 Gln Asp Gly Ala Ser Asn Gly Leu Ser Ala Pro Asn Gly Pro Ser Gln
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 Glu Arg Val Ile Arg Gln Ala Leu Ala Asn Ala Gly Leu Thr Pro Ala
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 Asp Val Asp Ala Val Glu Ala His Gly Thr Gly Thr Arg Leu Gly Asp
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 Pro Ile Glu Ala Gln Ala Val Leu Ala Thr Tyr Gly Gln Gly Arg Asp
 325 330 335
 Thr Pro Val Leu Leu Gly Ser Leu Lys Ser Asn Ile Gly His Thr Gln
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 Ala Ala Ala Gly Val Ala Gly Val Ile Lys Met Val Leu Ala Met Arg
 355 360 365
 His Gly Thr Leu Pro Arg Thr Leu His Val Asp Thr Pro Ser Ser His
 370 375 380
 Val Asp Trp Thr Ala Gly Ala Val Glu Leu Leu Thr Asp Ala Arg Pro
 385 390 395 400
 Trp Pro Glu Thr Asp Arg Pro Arg Arg Ala Gly Val Ser Ser Phe Gly
 405 410 415
 Val Ser Gly Thr Asn Ala His Val Leu Leu Glu Ala His Pro Ala Gly
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 Glu Pro Pro Ala Glu Glu Pro Ser Ala Ser Lys Pro Gly Glu Pro Leu
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 465 470 475 480
 Pro Gly His Asp Pro Arg Ala Ile Ala Ala Gly Leu Leu Ala Arg Arg
 485 490 495
 Thr Thr Phe Pro His Arg Ala Val Leu Leu Asp Asp Asp Val Val Thr
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 Gly Thr Ala Leu Thr Glu Pro Arg Thr Val Phe Val Phe Pro Gly Gln
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 Gly Pro Gln Trp Arg Gly Met Gly Val Glu Leu Met Ala Ala Ser Pro
 530 535 540
 Val Phe Ala Ala Arg Met Arg Gln Cys Ala Asp Ala Leu Ile Pro His
 545 550 555 560
 Thr Gly Trp Asp Pro Ile Ala Met Leu Asp Asp Pro Glu Val Thr Arg
 565 570 575
 Arg Val Asp Val Val His Pro Val Cys Trp Ala Val Met Val Ser Leu
 580 585 590
 Ala Ala Val Trp Glu Ala Ala Gly Val Arg Pro Asp Ala Val Ile Gly
 595 600 605
 His Ser Gln Gly Glu Ile Ala Ala Ala Cys Val Ala Gly Ala Leu Thr
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 Leu Glu Asp Gly Ala Arg Leu Val Ala Leu Arg Ser Val Leu Leu
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 Leu Arg Glu Leu Ala Gly Arg Gly Ala Met Gly Ser Val Ala Leu Pro
 645 650 655
 Ala Ala Asp Val Glu Ala Asp Ala Ala Arg Ile Asp Gly Val Trp Val
 660 665 670
 Ala Gly Arg Asn Gly Ala Thr Thr Thr Val Ala Gly Arg Pro Asp
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 705 710 715 720
 Leu Tyr Asp Glu Leu Gln Arg Ile Val Ala Asp Thr Thr Ser Arg Thr

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Phe	Ala	Thr	Ala	Val	Thr	Ala	Ala	Arg	Glu	Pro	Gly	Asp	Thr	Val	Phe
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Phe	Asp	Ala	Ala	Phe	Phe	Gly	Ile	Ser	Pro	Arg	Glu	Ala	Leu	Ala	Met
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Asp	Pro	Gln	Gln	Arg	Leu	Val	Leu	Glu	Thr	Ser	Trp	Glu	Ala	Leu	Glu
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His	Ala	Gly	Ile	Leu	Pro	Glu	Ser	Leu	Arg	Gly	Ser	Asp	Thr	Gly	Val
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Ser	Tyr	Phe	Tyr	Gly	Leu	Glu	Gly	Pro	Ala	Val	Thr	Val	Asp	Thr	Ala
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Ser	Gly	Glu	Cys	Ser	Leu	Ala	Leu	Val	Gly	Gly	Val	Thr	Val	Met	Ala
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Asp	Ala	Arg	Cys	Lys	Ala	Phe	Ala	Asp	Ala	Ala	Asp	Gly	Thr	Gly	Phe
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Arg	Asn	Gly	His	Arg	Val	Leu	Ala	Val	Val	Arg	Gly	Ser	Ala	Val	Asn
					260			265			270				

Gln Asp Gly Ala Ser Asn Gly Leu Ser Ala Pro Asn Gly Pro Ser Gln
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 Glu Arg Val Ile Arg Gln Ala Leu Ala Asn Ala Gly Leu Thr Pro Ala
 290 295 300
 Asp Val Asp Ala Val Glu Ala His Gly Thr Gly Thr Arg Leu Gly Asp
 305 310 315 320
 Pro Ile Glu Ala Gln Ala Val Leu Ala Thr Tyr Gly Gln Gly Arg Asp
 325 330 335
 Thr Pro Val Leu Leu Gly Ser Leu Lys Ser Asn Ile Gly His Thr Gln
 340 345 350
 Ala Ala Ala Gly Val Ala Gly Val Ile Lys Met Val Leu Ala Met Arg
 355 360 365
 His Gly Thr Leu Pro Arg Thr Leu His Val Asp Thr Pro Ser Ser His
 370 375 380
 Val Asp Trp Thr Ala Gly Ala Val Glu Leu Leu Thr Asp Ala Arg Pro
 385 390 395 400
 Trp Pro Glu Thr Asp Arg Pro Arg Arg Ala Gly Val Ser Ser Phe Gly
 405 410 415
 Val Ser Gly Thr Asn Ala His Val Leu Leu Glu Ala His Pro Ala Gly
 420 425 430
 Glu Pro Pro Ala Glu Glu Pro Ser Ala Ser Lys Pro Gly Glu Pro Leu
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 Ile Ala Thr Pro Leu Thr Pro Leu Pro Val Ser Ala Arg Thr Ala Thr
 450 455 460
 Ala Leu Asp Gly Gln Val Arg Arg Leu Arg Glu His Leu Ala Ala Arg
 465 470 475 480
 Pro Gly His Asp Pro Arg Ala Ile Ala Gly Leu Leu Ala Arg Arg
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 Thr Thr Phe Pro His Arg Ala Val Leu Leu Asp Asp Asp Val Val Thr
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 Gly Thr Ala Leu Thr Glu Pro Arg Thr Val Phe Val Phe Pro Gly Gln
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 Gly Pro Gln Trp Arg Gly Met Gly Val Glu Leu Met Ala Ala Ser Pro
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 Val Phe Ala Ala Arg Met Arg Gln Cys Ala Asp Ala Leu Ile Pro His
 545 550 555 560
 Thr Gly Trp Asp Pro Ile Ala Met Leu Asp Asp Pro Glu Val Thr Arg
 565 570 575
 Arg Val Asp Val Val His Pro Val Cys Trp Ala Val Met Val Ser Leu
 580 585 590
 Ala Ala Val Trp Glu Ala Ala Gly Val Arg Pro Asp Ala Val Ile Gly
 595 600 605
 His Ser Gln Gly Glu Ile Ala Ala Ala Cys Val Ala Gly Ala Leu Thr
 610 615 620
 Leu Glu Asp Gly Ala Arg Leu Val Ala Leu Arg Ser Val Leu Leu Leu
 625 630 635 640
 Leu Arg Glu Leu Ala Gly Arg Gly Ala Met Gly Ser Val Ala Leu Pro
 645 650 655
 Ala Ala Asp Val Glu Ala Asp Ala Ala Arg Ile Asp Gly Val Trp Val
 660 665 670
 Ala Gly Arg Asn Gly Ala Thr Thr Thr Val Ala Gly Arg Pro Asp
 675 680 685
 Ala Val Glu Thr Leu Ile Ala Asp Tyr Glu Ala Arg Gly Val Trp Val
 690 695 700
 Arg Arg Ile Ala Val Asp Cys Pro Thr His Thr Pro Phe Val Asp Pro
 705 710 715 720
 Leu Tyr Asp Glu Leu Gln Arg Ile Val Ala Asp Thr Thr Ser Arg Thr
 725 730 735
 Pro Glu Ile Pro Trp Phe Ser Thr Ala Asp Glu Arg Trp Ile Asp Ala
 740 745 750
 Pro Leu Asp Asp Glu Tyr Trp Phe Arg Asn Met Arg His Pro Val Gly
 755 760 765
 Phe Ala Thr Ala Val Thr Ala Ala Arg Glu Pro Gly Asp Thr Val Phe

	770	775	780												
Val	Glu	Val	Ser	Ala	His	Pro	Val	Leu	Leu	Pro	Ala	Ile	Asp	Gly	Ala
785							790			795					800
Thr	Val	Ala	Thr	Leu	Arg	Arg	Gly	Gly	Gly	Val	His	Arg	Leu	Leu	Thr
							805			810					815
Ala	Leu	Ala	Glu	Ala	His	Thr	Thr	Gly	Val	Pro	Val	Asp	Trp	Ala	Ala
							820			825					830
Val	Val	Pro	Ala	Thr	Ala	Thr	Ala	His	Asp	Leu	Pro	Thr	Tyr	Ala	Phe
							835			840					845
His	His	Glu	Arg	Tyr	Trp	Ile	Ser	His	Trp	Leu	Pro	Ser	Gly	Glu	Ala
							850			855					860
His	Pro	Arg	Pro	Ala	Asp	Asp	Thr	Glu	Ser	Gly	Thr	Gly	Arg	Thr	Glu
							865			870					875
Ala	Ser	Pro	Pro	Arg	Pro	His	Asp								
							885								